

Outline of Anticipated Strategies and Sub-strategies

12-8-2011

A. Protect and Restore Terrestrial and Freshwater Ecosystems

Smart Growth, Development, Land Use and Land Protection

A1. Focus land development away from ecologically important and sensitive areas

- A1.1 Identify and prioritize areas that should be protected or restored and those that are best suitable for (low impact) development
- A1.2 Local plans, regulations and policies are consistent with protection and recovery targets for Puget Sound
- A1.3 Improve local governments' ability and willingness to implement, monitor and enforce plans, regulations and permits that are consistent with protection and recovery targets for Puget Sound.
- A1.4 Strengthen and streamline existing local, state, federal permitting programs

A2. Permanently protect the intact areas of the Puget Sound ecosystem that still function well

- A2.1 Obtain full or partial property interests for lands at risk of conversion or impacts from human activities
- A2.2 Use special designations to protect intact areas

[Target View: Land Development]

A3. Protect and steward ecologically sensitive rural and resource lands

- A3.1 Create and offer an expanded, integrated suite of incentives and market-based programs that make voluntary stewardship and conservation of private forest and agricultural lands practical and economically rewarding
- A3.2 Create a Comprehensive Conservation and Ecosystem Services Market focused on resource lands for the Puget Sound Region
- A3.3 Develop a comprehensive strategy for retaining economically viable and long-term successful, working agricultural and forest lands through a collaborative process

A4. Encourage compact regional growth patterns and create dense, attractive and mixed-use and transit-oriented communities

- A4.1 Create a sub-regional network of regional alliances and multi-county scenario visions or plans
- A4.2 Provide the necessary infrastructure and incentives within urban growth areas to accommodate new and re-development
- A4.3 Enhance and expand the benefits of living in compact communities to increase consumer demand for them

[Target View: Land Cover]

A5. Protect and restore floodplain function

- A5.1 Improve data and information to accelerate floodplain protection, restoration, and flood hazard management
- A5.2 Align policies, regulations, planning, and agency coordination to support multi-benefit floodplain management
- A5.3 Implement and maintain priority floodplain restoration projects
- A5.4 Protect and maintain intact and functional floodplains
- A5.5 Protect, enhance, and restore floodplain function on forest and agricultural lands
- A5.6 Incorporate climate change forecasts into floodplain protection and restoration strategies

[Target View: Floodplains]

Restore Key Terrestrial and Freshwater Habitats

A6. Implement and maintain freshwater and upland restoration projects

- A6.1 Implement and maintain priority freshwater restoration projects
- A6.2 Implement and maintain priority terrestrial restoration projects
- A6.3 Implement restoration actions in urban and suburban areas while balancing the need for these areas to accommodate growth, density and infill development
- A6.4 Implement stewardship incentive programs to increase the ability of private landowners to undertake and maintain restoration projects

A7. Increase the success rate of mitigation projects to achieve, at a minimum, no-net-loss of ecosystem function on a watershed scale.

- A7.1 Reinforce the importance of avoiding and minimizing impacts to resources, particularly those with high ecological value and that are difficult to replace. Develop and implement updated avoidance and minimization guidance consistent with the ecosystem protection decision-making framework described in A1.2.
- A7.2 Establish and implement a watershed-based approach to mitigation.
- A7.3 Support the development and piloting of innovative compensatory mitigation tools including market-based techniques and other approaches.
- A7.4 Improve effectiveness monitoring programs for mitigation sites.

Sustain Freshwater Availability for Instream and Human Uses

A8. Protect and conserve freshwater resources to increase and sustain water availability for instream flows

- A8.1 Update Puget Sound instream flow rules and to encourage conservation
- A8.2 Decrease the amount of water withdrawn or diverted and per capita water use
- A8.3 Implement effective management programs for groundwater

[Target View: Summer Stream Flows]

Protect and Recover Salmon

A9. Protect and recover salmon

- A9.1 Implement the high priority salmon recovery actions identified in other parts of the Action Agenda and the Biennial Science Work Plan
- A9.2 Implement salmon recovery strategies and actions not listed elsewhere in the Action Agenda
- A9.3 Maintain and enhance the community infrastructure that supports salmon recovery

[Target View: Wild Chinook Salmon]

Protect and Recover other Native Terrestrial and Freshwater Species

A10. Protect and Restore the Native Diversity and Abundance of Puget Species

- A10.1 Implement species recovery plans in a coordinated way
- A10.2 Create a more integrated planning approach to protect and enhance biodiversity in the Puget Sound basin

A11. Prevent and respond to the introduction of freshwater and terrestrial invasive species

- A11.1 Prevent and rapidly respond to the introduction and spread of invasive species
- A11.2 Answer key invasive species research questions and fill information gaps

B. Protect and Restore Marine and Marine Nearshore Ecosystems

Nearshore Growth and Marine Protection

B1. Use anticipated population and economic growth as a catalyst for recovery by building on existing efforts to establish protection and restoration priorities

- B1.1 Ensure complete, accurate and recent information directly assists shoreline planning and decision making at the site-specific and regional levels
- B1.2 Monitor projects to effectively evaluate results and implement adaptive management
- B1.3 Use outreach and education to encourage actions to protect and restore nearshore and marine habitats

B2. Protect and conserve relatively intact ecosystems to maintain the health of Puget Sound

- B2.1 Take actions that protect priority nearshore physical and ecological processes consistent with the Soundwide restoration priorities identified in B1.1
- B2.2 Prevent new shoreline armoring except where it is required to protect existing infrastructure from imminent risk
- B2.3 Where armoring is aging or non-protective, seek opportunities for permanent removal or the use of soft armoring replacement or landward setback techniques
- B2.4 Take actions to protect migratory corridors and vegetation particularly in sensitive areas such as eelgrass beds
- B2.5 Take actions that protect intact marine environments and priority marine physical and ecological processes consistent with the Soundwide priorities identified in B1.1
- B2.6 Give permitting agencies and local governments the tools and resources they need to ensure protection of nearshore and marine environments

[Target View: Shoreline Armoring]

B3. Implement and maintain priority nearshore and marine ecosystem restoration projects

- B3.1 Use a variety of mechanisms to advance priority restoration projects
- B3.2 Provide incentives to encourage removal of armoring and associated fill and use of soft armoring techniques when bulkheads fail, need repair, and during redevelopment
- B3.3 Implement priority marine restoration actions consistent with the Soundwide restoration priorities identified in B1.1
- B3.4 Accelerate restoration projects on public lands where government can lead by example

[Target View: Estuaries]

Working Waterfronts and Public Access

B4. Protect, Support Economic Viability of Working Waterfronts to Help Maintain Ecosystem Function and Sustain Quality of Life

- B4.1 Use, coordinate, expand and promote financial incentives and programs for best practices at ports and in the marine industry that are protective of ecosystem health

B5. Improve Public Access to Puget Sound

- B5.1 Increase access to publically owned Puget Sound shorelines
- B5.2 Increase public access to the marine ecosystem

Protect and Recover Native Marine Species

B6. Implement a coordinated strategy to achieve the 2020 eelgrass recovery target

- B6.1 Improve data and information to protect eelgrass in sensitive areas
- B6.2 Use a variety of mechanisms to advance priority eelgrass restoration projects

[Target View: Eelgrass]

B7. Protect and recover marine and nearshore species

- B7.1 Implement existing biodiversity plans in a coordinated way while a more integrated planning approach is created
- B7.2 Implement existing marine and nearshore species recovery plans in a coordinated way

[Target View: Pacific Herring]

[Target View: Orcas]

B8. Prevent and respond to the introduction of marine invasive species.

- B8.1 Prevent and rapidly respond to the introduction and spread of marine invasive species
- B8.2 Answer key invasive species research questions and fill information gaps

Fill Key Science and Information Gaps for Marine and Nearshore

- B9. Strategies and actions to flow from the Biennial Science Work Plan effort

C. Reduce and Control the Sources of Pollution to Puget Sound

Prevent and Reduce Toxic Loadings into Puget Sound

C1. Reduce the sources of toxic chemicals entering Puget Sound

- C1.1 Implement and strengthen authorities and programs to prevent toxic chemicals from entering the Puget Sound environment
- C1.2 Promote the development and use of safer alternatives to toxic chemicals
- C1.3 Adopt and implement plans and control strategies to reduce toxic releases into the Puget Sound from air emissions
- C1.4 Provide education and technical assistance to prevent and reduce toxic releases
- C1.5 Increase compliance with and enforcement of environmental laws, regulations, and permits

[Target View: Freshwater Quality]

[Target View: Marine Water Quality]

Control and Manage Stormwater

C2. Use a comprehensive approach to manage urban stormwater runoff at the site and landscape scales

- C2.1 Manage urban runoff at the basin and watershed scale
- C2.2 Prevent problems from new development at the site and subdivision scale
- C2.3 Fix problems caused by existing development (structural upgrades; regular and enhanced maintenance)

- C2.4 Control sources of pollutants
- C2.5 Provide focused stormwater-related education and training
- C2.6 Assess effectiveness of actions and effects on the environment

[Target View: Insects in Small Streams]

C3. Agricultural Runoff

- C3.1 Target voluntary and incentive-based programs in ways that will best contribute to Puget Sound recovery
- C3.2 Ensure compliance with regulatory programs designed to reduce, control or eliminate pollution from working farms

C4. Surface Runoff from Forest Lands

- C4.1 Demonstrate achievement of water quality standards through implementation of the Forest and Fish Report on state and privately owned working forests.
- C4.2 Ensure road maintenance and abandonment plans on working forestland subject to the Forest Practices Rules are completed on schedule.
- C4.3 Ensure federal forest managers implement the same substantive requirements for maintenance and abandonment of forest road systems as are required for state and privately owned forests under the Washington Forest Practices rules.

[Target View: Dissolved Oxygen in Puget Sound]

Prevent Pathogen and Nutrient Loadings into Puget Sound

C5. Prevent, reduce and/or eliminate pollution from decentralized wastewater treatment systems

- C5.1 Effectively manage and control pollution from small on-site sewage systems
- C5.2 Effectively manage and control pollution from large on-site sewage systems
- C5.3 Improve and expand funding for on-site system maintenance, repair and replacement

[Target View: Management of On-Site sewage Systems]

C6. Prevent, reduce and/or eliminate pollution from centralized wastewater systems

- C6.1 Reduce the concentrations of contaminant sources of pollution conveyed to wastewater treatment plants through education and appropriate regulations, including improving pre-treatment requirements
- C6.2 Reduce pollution loading to Puget Sound by preventing and reducing Combined Sewer Overflows
- C6.3 Improve the reliability of the wastewater collection system by reducing inflow, infiltration and exfiltration
- C6.4 Implement priority upgrades of municipal and industrial wastewater facilities in urban and urbanizing areas to increase the effectiveness of treatment and reduce pollution loads to Puget Sound

- C6.5 Ensure all centralized wastewater treatment plants meet discharge permit limits through compliance monitoring, technical assistance, and enforcement where needed
- C6.6 Promote appropriate reclaimed water projects to reduce pollutant loading to Puget Sound

C7. Rethinking how we plan for and approach wastewater control and management

- C7.1 Include assessment of cumulative impacts in planning and permitting for centralized and decentralized wastewater systems in comprehensive plans

C8. Control and manage pollution from discharges of wastewater from boats and vessels

- C8.1 Establish No Discharge Zones for commercial and/or recreational vessels in all or parts of Puget Sound that have nutrient and/or pathogen problems
- C8.2 Control other sources of boat and vessel pollution including oils and other toxics

[Target View: Swimming Beaches]

C9. Abundant, healthy shellfish for ecosystem health and for commercial, subsistence, and recreational harvest consistent with ecosystem protection.

- C9.1 Improve water quality to prevent downgrade and achieve upgrades of important current tribal, commercial and recreational shellfish harvesting areas
- C9.2 Restore and enhance native shellfish populations
- C9.3 Encourage environmentally responsible shellfish aquaculture and enhancement of the recreational harvest based on sound science
- C9.4 Resolve competing priorities between aquaculture and nearshore, habitat and upland uses
- C9.5 Implement Washington State's Shellfish Initiative

[Target View: Shellfish Bed Recovery]

C10. Effectively prevent, plan for and respond to oil spills

- C10.1 Spill Prevention: Emphasize use of risk-based approaches to improve marine safety and protect our environment, economy and quality of life
- C10.2 Spill Readiness: Broaden State participation in oil spill drills and promote better integration with tribes and local government
- C10.3 Spill Response: Ensure the best available science and technology are used to respond to spills and improve cleanup efficiency
- C10.4 Environmental Restoration: Strengthen oil spill Natural Resource Damage Assessment and Restoration (NRDAR)

C11. Address and Clean Up Cumulative Water Pollution Impacts in Puget Sound

- C11.1 Complete Total Maximum Daily Load (TMDL) studies and other necessary water cleanup plans for Puget Sound to set pollution discharge limits and determine response strategies to address water quality impairments.
- C11.2 Clean up contaminated sites within and near Puget Sound.
- C11.3 Restore and protect water quality at swimming beaches and recreational areas.

- C11.4 Develop and implement local and tribal pollution identification and correction (PIC) programs.
- C11.5 Develop and implement a monitoring and evaluation program.

[Target View: Toxics in Fish]

[Target View: Marine Sediment Quality]

Section D: Strategic Leadership and Collaboration

- D1 Provide the leadership and frameworks to guide the Puget Sound recovery effort and set action and funding priorities**
 - D1.1 Provide backbone support for the recovery effort [Management Conference]
 - D1.2 Maintain and update the Action Agenda as the shared recovery plan
- D2 Strategic, Collaborative Partnerships**
 - D2.1 Local Integrating Organizations: enhancing coordination and local recovery actions
- D3 Implement a transparent performance management system that tracks and reports progress in achieving ecosystem recovery targets, identifies barriers, and finds solutions to adaptively manage recovery**
 - D3.1 Work collaboratively to track and report on implementation performance
 - D3.2 Work collaboratively to report on recovery progress
- D4 Implement a strategic science and regional monitoring program that improves decisions about how to restore and protect Puget Sound**
 - D4.1 Oversee strategic planning for Puget Sound recovery science
 - D4.2 Coordinate the development and implementation of the Ecosystem Monitoring Program
- D5 Cultivate broad-scale stewardship practices and behaviors among Puget Sound residents that benefit Puget Sound**
 - D5.1 Prioritize targeted stewardship issues, actions and audiences based on (1) problem severity, (2) problem frequency, (3) availability of and confidence in science (natural and social) behind the problem, and (4) ability to influence change
 - D5.2 Enable and encourage residents to take informed stewardship actions addressing infiltration, pollution reduction, habitat improvement, forest cover, soil development, critical areas, reductions in shoreline armoring, and specific actions identified in sub-strategy D5.1
 - D5.3 Collaboratively develop and promote science-based targeted communications and behavior change strategies across the region
 - D5.4 Improve effectiveness of local and regional awareness-building and behavior change programs through vetted messages, proven strategies and outcome-based evaluation. Guide partners in use of formative research and diffusion of priority BMPs
 - D5.5 Enhance resources to sustain and expand effective behavior change and volunteer programs that support Action Agenda priorities and that have demonstrated, measurable outcomes

- D5.6 Create a repository of market, social, and audience research to support stewardship work. Include research and data from local, state, and federal governments, nonprofit, and private sector sources. Synthesize and disseminate to partners
- D5.7 Review practices and issues that require solutions beyond the Puget Sound region such as automotive, manufacturing and distribution of toxins, and pharmaceutical waste management. Develop strategies and partnerships outside the Puget Sound region to address issues

- D6 Build issue awareness and understanding to increase public support and engagement in recovery actions**
 - D6.1 Implement a long-term, highly visible, coordinated public-awareness effort using the Puget Sound Starts Here brand to increase public understanding of Puget Sound’s health, status, and threats. Conduct regionally-scaled communications to provide a foundation for local communications efforts. Conduct locally-scaled communications to engage residents in local issues and recovery efforts
 - D6.2 Incorporate and expand Puget Sound related content in diverse delivery settings (e.g., recreation, education institutions, local government, neighborhood and community groups, nonprofit organizations, businesses). Connect residents with public engagement and volunteer programs
 - D6.3 Incorporate Puget Sound place-based content into K-12 curricula throughout the Puget Sound region. Connect schools with technical assistance, inquiry-based learning opportunities, and community resources. Implement student service projects connected to ecosystem recovery. Link schools to organizations with structured volunteer opportunities
 - D6.4 Foster a long-term sense of place among Puget Sound residents. Encourage direct experiences with Puget Sound’s aquatic and terrestrial resources through recreation, informal learning, and public access sites
 - D6.5 Build awareness of stewardship-building efforts among elected officials, executive staff, funders, resource managers, and others with resource allocation ability. Emphasize program roles, needs, relationship with other Action Agenda strategies and program outcomes

- D7 Build social and institutional infrastructure that supports stewardship behaviors and removes barriers**
 - D7.1 Apply appropriate social science to Puget Sound recovery to increase clarity and effectiveness of targeted actions, audiences, opportunities, strategies, and evaluation metrics
 - D7.2 Build capacity among partner organizations to advance priority stewardship actions. Provide technical support and training to advance program effectiveness, evaluation, and support of Action Agenda priorities
 - D7.3 Maintain centralized capacity to sustain and enhance the regional *Puget Sound Starts Here* campaign
 - D7.4 Provide public information conduits connecting individuals to local activities and resources—including engagement incentives such cost-share programs, technical assistance, and volunteer experiences
 - D7.5 Enhance strategic networks and tools that support stewardship partners and outcomes including ECO-Net, STORM, tribes, municipalities not covered by stormwater permits, public agencies, funders, universities, NGOs and others
 - D7.6 Work regionally and locally to remove barriers (e.g., physical, economic, regulatory, enforcement, policy), and enable and incentivize adoption of stewardship actions

Funding Strategy: Develop and secure stable and diverse sources of funding to implement Action Agenda Priorities

- FS1.1 Maintain and enhance federal funding for implementation of Action Agenda priorities
- FS1.2 Focus federal agency budgets and national programs on Action Agenda priorities
- FS1.3 Maintain, enhance, and focus state funding for implementation of Action Agenda priorities
- FS1.4 Maintain and enhance local funding for implementation of Action Agenda priorities
- FS1.5 Develop opportunities for private sector funding for implementation of Action Agenda priorities
- FS1.6 Develop and implement market-based mechanisms for implementation of priorities in the Action Agenda